Claims

1. A thermocycling device comprising a rotor (1) for holding reaction vessels (2), a motor (3), connected to said rotor, means such as a processor (4) for controlling the speed of the rotor, and means (5 and 6) for heating and cooling the contents of the reaction vessels, **characterized** in that the means (6) for heating cover the apices of the reaction vessels for at least part of the rotational path of said vessels and that the means for heating operate at a temperature significantly higher than the melting temperature of the reaction vessels.

2. The device according to claim 1, **characterized** in that the heating means (6) comprise a mantle which can be moved in relation to the rotational path of the reaction vessels.

3. The device according to claim 1, **characterized** in that it comprises an temperature sensor (7), the measuring focus of which intersects the rotation path of the apices of the reaction vessels.

4. The device according to claim 1, **characterized** in that it comprises a radiation source (8) emitting a ray of radiation which intersects the rotation path of the apices of the reaction vessels and a sensor (9), capable of registering at least one of the following; light reflected from the reaction vessels, light emitted by the contents of the reaction vessels.

5. The device according to claim 3, **characterized** in that the temperature sensor (7) is a IR sensor.

6. The device according to claim 4, **characterized** in that the radiation source (8) is a laser source.

7. The device according to claim 4, **characterized** in that the sensor registering the reflected light from the rotating reaction vessels sends a signal to a processor (4) which controls the speed of the rotor.

8. The device according to claim 4, **characterized** in that the sensor registering the reflected light from the rotating reaction vessels sends a signal to a processor (9) which controls the measuring frequency of the temperature sensor.

9. The device according to claim 1, **characterized** in that said rotor (1) for holding at least one reaction vessel is chosen among the following: a drum rotor, a swing-bucket rotor and a fixed angle rotor.

10. The device according to claim 9, **characterized** in that the reaction vessel is chosen among the following: a micro tube, an Eppendorf-tube or a well in a microtitre plate.

11. The device according to claim 1, **characterized** in that a telecentric lens is positioned between the heating source and the reaction vessel or reaction vessels.

12. The device according to claim 1, **characterized** in that it comprises means for reading information contained on or in association to the reaction vessels.

13. A method for performing chemical reactions in fluid media contained in reaction vessels, **characterized** in that said method comprises the following steps:

i) at least one reactant is measured into a reaction vessel,

ii) said reaction vessel with contents is placed in a device capable of subjecting it simultaneously to centrifugation and heating;

iii) said reaction vessel is subjected to centrifugation; and

iv) the distal end of the reaction vessel is subjected to heating.

14. The method according to claim 13, **characterized** in that at least one reactant is added using a capillary or similar device, which only releases its content upon centrifugation.

15. A method for performing chemical reactions in fluid media contained in reaction vessels, **characterized** in that a device according to any one of claims 1 - 12 is used.

16. A method for performing biochemical reactions involving thermocycling, **characterized** in that a device according to any one of claims 1 - 12 is used.

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